S I R :

Responsive to the Office Action mailed November 04, 2008, the term for response to which expires February 04, 2009 please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims, which begins on page 2 of this paper.

Remarks begin on page 6 of this paper.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (canceled)

Claim 2 (currently amended). The fully-dense discontinuously-reinforced titanium matrix composite material according to claim ~~15~~ 18 is characterized by discontinuous porosity at the density over 98% from the theoretical value.

Claim 3 (currently amended) The fully-dense discontinuously-reinforced titanium matrix composite material according to claim ~~15~~18, wherein the matrix alloy is selected from α-titanium alloys, (α+β)-titanium alloys, β-titanium alloys, and titanium aluminide alloys

Claim 4 (currently amended) The fully-dense discontinuously-reinforced titanium matrix composite material according to claim ~~15~~ 18, wherein the ceramic and/or intermetallic hard

particles dispersed in the matrix selected from the group consisting of TiC, B_4C, SiC, ZrC, TaC, WC, NbC, TiAl, Ti_3Al, $TiAl_3$, $TiAlV_2$, additionally comprises Al_8V_5, and $TiCr_2$.

Claim 5 (withdrawn) A method for manufacturing the fully-dense discontinuously-reinforced titanium matrix composite material according to claim 1-4, is comprised of the following steps:

(a) preparing a basic powdered blend containing the matrix alloy or titanium powders which have a particle size over 20 μm for 95% of the powder, dispersing ceramic and intermetallic powders, and powders of complex carbide particles, and carbide-silicide particles that are at least partially soluble in the matrix at the sintering and forging temperatures such as $Ti_4Cr_3C_6$, Ti_3SiC_2, Cr_3C_2, Ti_3AlC_2, Ti_2AlC, Al_4C_3, Al_4SiC_4, $Al_4Si_2C_5$, Al_8SiC_7, V_2C, (Ti,V)C, VCr_2C_2, and $V_2Cr_4C_3$,

(b) preparing the aluminum-vanadium master alloy containing 0.01-5 wt.% of iron,

(c) preparing the Al-V-Fe master alloy fine powder having a particle size of 20 μm or less,

(d) mixing the basic powdered blend (a) with the master alloy powder (c) in the predetermined ratio to obtain a chemical composition of titanium matrix composite material,

(e) compacting the powder mixture at room temperature by cold isostatic pressing, die pressing, or direct powder rolling,

(f) sintering at the temperature providing at least partial dissolution of dispersing ceramic and/or intermetallic powders,

(g) forging at the temperature range of 1500-2300°F, and

(h) cooling.

Claim 6 (withdrawn) The method for manufacturing the fully-dense discontinuously-reinforced titanium matrix composite material according to claim 5, wherein the basic powdered blend is prepared in the form of elemental powder blend or combination of elemental powders and prealloyed powders blend.

Claim 7 (withdrawn) The method for manufacturing the fully-dense discontinuously-reinforced titanium matrix

composite material according to claim 5, wherein the dispersing ceramic and/or intermetallic powders are selected from the group consisting of TiC, B_4C, SiC, ZrC, TaC, WC, NbC, TiAl, Ti_3Al, $TiAl_3$, $TiAlV_2$, Al_8V_5, and $TiCr_2$.

Claim 8 (withdrawn) The method for manufacturing the fully-dense discontinuously-reinforced titanium matrix composite material according to claim 5, wherein carbon powder is introduced in the basic powder blend.

Claim 9 (withdrawn) The method for manufacturing the fully-dense discontinuously-reinforced titanium matrix composite material according to claim 7, wherein the carbon is in the form of graphite, black carbon, or pyrolytic carbon.

Claim 10 (withdrawn) The method for manufacturing the fully-dense discontinuously-reinforced titanium matrix composite material according to claim 5, wherein the sintering is carried out at the temperature of 2300°F (1260°C) and higher to provide complete densification and provide oversaturated solid solution that will result in the formation of coherent reinforced carbidic and/or intermetallic particles in the matrix alloy during the cooling.

Claim 11 (withdrawn) The method for manufacturing the fully-dense discontinuously-reinforced titanium matrix composite material according to claim 5, wherein hot pressing, hot isostatic pressing, or hot rolling are carried out after sintering in any combination.

Claim 12 (withdrawn) The method for manufacturing the fully-dense discontinuously-reinforced titanium matrix composite material according to claim 5, wherein the resulting composite material is characterized by density over 98% of theoretical value and discontinued porosity after sintering that makes it possible forging, hot pressing, hot isostatic pressing, or hot rolling without any special protective coating, encapsulating, or canning.

Claim 13 (withdrawn) Use of near-full density titanium matrix composite material manufactured according to claim 5 in the as-sintered state characterized by density over 98% of theoretical value and discontinued porosity.

Claim 14 (withdrawn) Use of fully-dense titanium matrix composite material manufactured according to claim 5

in the near-net shape state after forging, hot pressing, hot isostatic pressing, or hot rolling performed without any special protective coating, encapsulating, or canning, and without finishing of final product by machining and/or chemical milling.

Claim 15 (canceled)

Claim 16 (canceled)

Claim 17(currently amended) The fully-dense discontinuously-reinforced titanium matrix composite material according to claim 4, wherein graphite ~~nanoparticles~~ hard particles and ~~nanoparticles~~ hard particles of silicon carbide SiC are added in amount of 40% or less of the total amount of said hard particles dispersed in the titanium matrix.

18. (new) A fully-dense discontinuously-reinforced titanium matrix composite material comprising a matrix of titanium or titanium alloy as a major component, ceramic and/or intermetallic hard particles dispersed in the matrix in an amount of 50% by volume or less TiC, B_4C, SiC, ZrC, TaC, WC, NbC, TiAl, Ti_3Al, $TiAl_3$, $TiAlV_2$, complex carbide particles selected from the group consisting of $Ti_4Cr_3C_6$, Cr_3C_2, Ti_2AlC, Al_4C_3, V_2C, (Ti,V)C, VCr_2C_2, and $V_2Cr_4C_3$, additionally comprising complex carbide-silicide and carbide-aluminide particles selected from the group consisting of Ti_3SiC_2, Ti_3AlC_2, Al_4SiC_4, $Al_4Si_2C_5$, and Al_8SiC_7.

19. (new) The fully-dense discontinuously-reinforced titanium matrix composite material according to claim 18, wherein said complex complex carbide-silicide and carbide-aluminide hard particles are dispersed in the matrix in the amount of about 20% by volume and at least partially soluble in the matrix at sintering and forging temperatures.